



# Procedures/Diagnostic Tests

Warren Grant Magnuson Clinical Center  
National Institutes of Health

## Thallium Scan

**Outpatient instruction sheet** *Test location: 1st floor heart station, behind the admissions desk.*

<i>Patient name</i>	<i>Doctor</i>
<i>Test date</i>	<i>Test time</i>
<i>This time is reserved only for you, so please arrive promptly. You might want to allow time for parking and taking the elevator.</i>	
<i>If you need to cancel this test, call _____ at 301-496-_____.</i>	
<i>Your doctor wants you to stop taking the following heart medication(s) _____ day(s) before this test:</i>	

*You are scheduled for a thallium scan. This test shows how well blood supplies your heart muscle after exercise and at rest. For this scan, thallium will be injected into an arm vein.*

*Thallium 201 is a radioactive compound that helps make scanning pictures. When thallium goes to tissues with normal blood flow, they look light when they are scanned; tissues with poor blood flow look dark. Thallium has about the same amount of radiation as a chest x-ray.*

*Your heart will be scanned twice: once after you exercise and again after you rest about 2 hours. A cardiologist evaluates your heart by comparing these two scans.*

### Preparation:

- **After midnight on the day of the test, do not eat or drink anything except water.**
- Drink lots of water before (and after) the test.
- Wear loose, comfortable clothes and walking shoes (or sneakers). Avoid one-piece outfits and pantyhose. Women should wear bras.
- The testing period will be about 5 hours, so you might want to bring something to read.

### Procedure:

1. Check in at the first floor heart station (located behind the admissions desk).
2. You will be escorted to the exercise lab located next door. There, an intravenous (I.V.) line will be put into an arm vein.

3. You will be connected to a cardiac monitor to check your heart rate and rhythm. An automatic blood pressure cuff will also be placed on one arm to measure your blood pressure.
4. You will be asked to walk on a treadmill. A nurse and doctor will be present while you walk. **Tell them if you feel any symptoms such as chest pain or pressure, shortness of breath, palpitations, lightheadedness, or weakness.** You will be asked to rate your chest discomfort on a scale of 1 to 10 (1 is the least discomfort; 10 is the worst discomfort you have felt).
5. Let the staff know when you can walk for about 1 minute more on the treadmill. At that time, thallium will be injected through your I.V. You will feel nothing when it is injected. You will then keep walking for 1 more minute.
6. You will then be seated in a wheelchair and taken immediately to the Nuclear Medicine Department. There, your heart will be scanned.

*The first scan:* You will be helped to lie on a narrow table with your arms raised over your head. You will need to lie still for about 30 minutes while the camera scans your heart. After this scan, your I.V. will be capped so that you can walk around freely. You will be asked to return to the Nuclear Medicine Department in about 2 hours. (You will be given an exact time.) While you wait for the second scan, you must not eat, but you may drink water only.

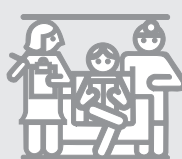
*The second scan:* When you return to the Nuclear Medicine Department, you will get a second small dose of thallium, and you will be scanned again.

**After the Procedure:**

When the second scan is completed, your I.V. will be removed. You may return home and go about your usual activities. Your referring doctor or your NIH doctor will give you the results.

**Special Instructions:**

If you have questions about the procedure, please ask. Your nurse and doctor are ready to assist you at all times.



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This information is prepared specifically for patients participating in clinical research at the Warren Grant Magnuson Clinical Center at the National Institutes of Health and is not necessarily applicable to individuals who are patients elsewhere. If you have questions about the information presented here, talk to a member of your healthcare team.

Questions about the Clinical Center? [OCCC@cc.nih.gov](mailto:OCCC@cc.nih.gov)

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